United States Department of Energy
Office of Environmental Management
Fact Sheet

Low Sulfur Fuel Oil at the Power Plant

Los Alamos National Laboratory

Original Problem

The power plant in Los Alamos normally burns natural gas to produce some of the electricity needed by LANL and the rest of Los Alamos, but the power plant is also capable of burning diesel oil to produce critical electricity for LANL if the natural gas supply is interrupted. Paul Parker and Robert Montano wanted to reduce sulfur dioxide emissions from the power plant to make compliance with future air permits easier for LANL.

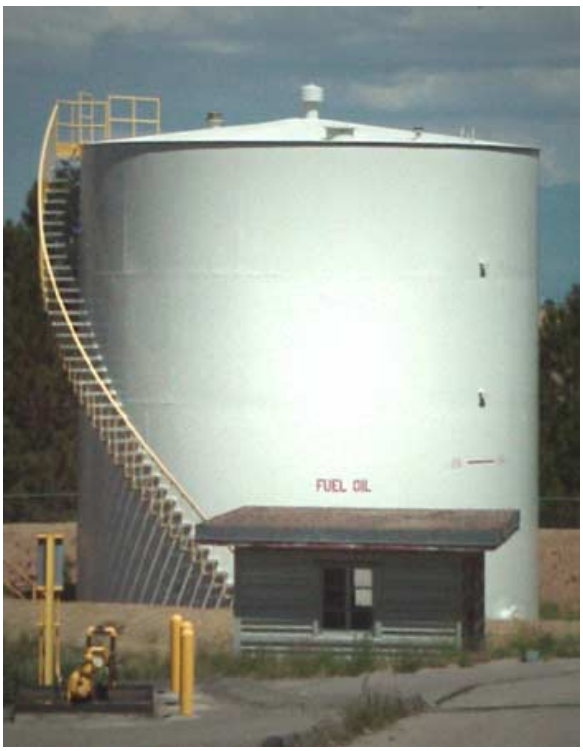
The Project Solution

Approximately 300,000 gallons of diesel oil are stored at the power plant for use in case of an emergency. The old variety of diesel fuel contained 0.5% sulfur, and the project members found a replacement variety of oil with less than 0.05% sulfur. Each week about 100 gallons of the new diesel oil are burned to ensure that all of the equipment is functioning, and now 90% less sulfur dioxide results from this process.

Value of Improvement

The most significant benefit realized from this project is that the sulfur dioxide emissions are reduced by approximately 90%. Using the new diesel fuel oil will prevent over 300 pounds of sulfur dioxide from being produced each year.

Lifecycle Waste Reduction	
Lifecycle Waste Reduction	300lb SO2 /yr.
Commencement Date	1999
Project Useful Life (Years)	Indefinite



DOE Monetary Benefits	
Total Project Cost	NA
Lifecycle Savings	NA
Return on Investment	NA

Benefits At-A-Glance

- Since the new diesel fuel oil has 90% less sulfur than the old oil, 90% less sulfur dioxide is produced when the new oil is burned to generate electricity.
- The low sulfur fuel oil costs about the same amount as the regular fuel oil.
- The low sulfur oil is performing as well as the regular fuel oil.

Completed Pollution Prevention Project Case Study

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Summary Data	
Priority Area:	Pollution Minimization Projects
Project Type:	Source Reduction
Total Project Cost:	NA
Lifecycle Savings:	NA
Implementing Group:	JCNNM
Benefiting Group:	All
Useful Life Years:	Indefinite
Return on Investment:	NA
Lifecycle Waste Reduction:	~300 pounds of sulfur dioxide / year
Project Contact:	Paul Parker
Phone:	(505)667-4707
Email:	prparker@lanl.gov